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Richard G. LeFauve
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Working Paper No. 3418-92BPS April 1992

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April 1992

This paper was presented at the Harvard Business School Colloquium on Global Competition and Telecommunications. It will be published in the book *Globalization, Technology, and Competition*, S. P. Bradley, J. A. Hausman, and R. L. Nolan (eds.), forthcoming.

The Origins of Saturn

Saturn Corporation was born from the economic and social realities within General Motors (GM) and the United Auto Workers (UAW) in the early '80s. In 1981, GM was experiencing financial losses, a prolonged U.S. recession, and an escalating loss of market share to foreign competitors. During this crisis, nearly 170,000 GM/UAW employes were laid off.

Responding to this challenge, GM began to scrutinize its American automobile production. In June of 1982, GM's Advanced Product and Design Team was asked to answer the question, "Can G.M. build a world-class-quality small car in the U.S. that can compete successfully with the imports?" They set up a "small car project" and they adopted a "clean-sheet"approach, avowing they would not be restricted by traditional thinking and industry practices. Perhaps by applying an unobstructed mind to any and all problems, new approaches and solutions could be found like lost-foam casting and high-speed machining techniques. These were two of the concepts that were evaluated and adapted as high risk but possible solutions to the challenge.

Meanwhile, another team was forming. Alfred S. Warren, vice president of GM's Industrial Relations Staff, and Donald Ephlin, UAW vice president and director of the General Motors Department, were increasingly dissatisfied with the labor relations climate. They decided to bring together a handful of people to figure out if there was a better way to do business. This handful soon realized the enormity of the question and reached out for additional team members. By the time they had finished, they were an unprecedented

alliance of GM and UAW people -- plant managers, superintendents, union committeemen, production workers, and skilled tradesmen along with UAW and GM staff. They represented the collective knowledge of 55 General Motors plants and 41 UAW locals in the GM system. They would become known as The Group of 99.

The teams then spent two months visiting 49 different GM plants and 60 benchmark companies all over the world. Together , they made more than 170 contacts, traveled approximately two million miles, and put in 50,000 hours of study.

During these fact-finding visits, they observed several common threads in the successful companies:

- Quality is a top priority for maintaining customer satisfaction. The customer is number one, whether the customer is the next group getting your parts (the internal customer) or the person getting your final product (the external customer).
- Everyone in the company has ownership of the company's failures and successes.
- Equality is practiced, not just preached.
- Barriers to doing a good job are eliminated.
- Total trust is a must.
- People are the company's most important asset.
- People are given authority to do the job.

With this background work behind them, the team members focused on two concepts that were new to General Motors. The first was a conflict resolution process that used consensus to determine outcomes. All key stakeholders in a conflict are given all

information relevant to the decision. By putting aside hidden agendas and focusing on each party's needs, a consensus is reached that results in a win-win solution for all stakeholders. A consensus requires that at least 70 percent of the participants are in agreement with the decision, and that each participant must commit 100 percent to its implementation.

The second concept that emerged was the need for a new organizational structure. Realizing that workers will support an environment that they help create, the Group of 99 believed the integration of technology and resources required a partnership of Saturn management people and UAW people on all levels of decision-making.

A Memorandum of Agreement separate from the GM-UAW national contract was then reached. Unlike traditional agreements, the Saturn/UAW agreement was 11 pages long . It did not list the forbidden fruit of most labor contracts; it stated simply the Saturn philosophy and the experimental structure for making world-class cars.

Saturn therefore emerged as a separate company, charged with creating a whole new idea for General Motors in the way the automobile business could be run.

The small car project identified the technology required to produce the small car; the Group of 99 revealed a willingness of UAW and G.M. management to work together to accomplish its business objectives. Roger Smith, General Motors' chairman, pledged that if a labor agreement could be written that would allow the integration of the needed technology, he would create a separate

company. He also suggested that the marketing people be included so a new approach to selling cars would be considered as well. The Saturn Project became a separate subsidiary known as the Saturn Corporation on January 7, 1985.

All agreed that the existing system needed to change to compete effectively. Saturn would not utilize technology for technology's sake but instead blend technology and people to optimize the overall business performance.

The Mission of Saturn

The mission statement developed by the founding team had two distinct components:

- To market vehicles developed and manufactured in the United States that are world leaders in quality, cost and customer satisfaction through the integration of people, technology and business systems.
- To transfer knowledge, technology and experience throughout General Motors.

Fundamentally, Saturn wanted to prove that Americans could be competitive in the small car market by manufacturing world-class cars engineered and designed in the U.S. Most importantly, Saturn did not limit itself to be successful in building cars but wanted to transfer its managerial and technological innovations to General Motors, and help make a transformation at GM. It was a challenge of immense proportions given to people willing to assume risks, drawing ideas from all over the world, and adapting them to

create a new approach to car making. As the mission statement also indicates, the key to that approach resides in an appropriate integration of people, technology, and business systems.

The Philosophy of Saturn

The mission of Saturn was complemented by a statement of corporate philosophy, which identifies the critical stakeholders of Saturn- its customers, members, suppliers, dealers, and neighbors - and how Saturn intends to fulfill its responsibilities toward them.

Saturn's philosophy reads as follows:

> We, the Saturn Team, in concert with the UAW and General Motors, believe that meeting the needs of customers, Saturn members, suppliers, dealers and neighbors is fundamental to fulfilling our mission.
>
> - To meet our customer's needs:
>   - Our products and services must be world leaders in value and satisfaction.
> - To meet our members' needs:
>   - We will create a sense of belonging in an environment of mutual trust, respect, and dignity.
>   - We believe that all people want to be involved in decisions that affect them.
>   - We will develop the tools, training, and education needed for each member.
>   - Creative, motivated, responsible team members who understand that change is critical to success are Saturn's most important asset.
> - To meet our suppliers' and dealers' needs:
>   - We will create real partnerships with them.
>   - We will strive for openness, fairness, trust and respect.
>   - We want them to feel ownership of Saturn's mission and philosophy.
> - To meet the needs of our community neighbors:

- We will be a good citizen and protect the environment.
- We will seek to cooperate with government at all levels.

By continuously operating according to this philosophy, we will fulfill our mission.

Saturn's philosophy was worded after a long and serious reflection by the founding team, and it became the guiding framework for Saturn's decision making process. The philosophy statement sounds simple and straightforward. In fact, it represents a fundamental commitment not to be compromised or undermined by decisions that could be attractive in the short term but would lead the organization to a very different direction in the long run. Constantly the relevant test a decision has to pass is whether it fits Saturn's philosophy. This provides a sense of coherence and strong character that is essential for a firm that believes people want to be involved in decisions that affect them, and is attempting to push responsibilities down into the organization.

The Core Values of Saturn

As a final complement to Saturn's mission and philosophy, the founding team concluded its task of defining the organizational principles of Saturn by enunciating its core values:

- Commitment to customer enthusiasm
- Commitment to excel
- Teamwork
- Trust and respect for the individual
- Continuous improvement

The five core values seem deceptively simple: put your customer first, have an unrelenting commitment toward excellence, teamwork and trust are the essence of our management style, and always strive for continuous improvement. Sadly, one has to understand the centrality and significance of these core values within the context of the American auto industry, whose complacency during part of the 1970s and 1980s caused a significant loss of competitiveness. Saturn is one of the most visible and creative responses from U.S. car manufacturers to regain public confidence and recover competitive advantage.

Saturn's mission, philosophy, and core values represent its unalterable foundation. The initial orientation and training of every new employee of Saturn starts with learning and serious reflection on this philosophical base, which constitutes the focal point of Saturn's leadership.

Partnership at Saturn

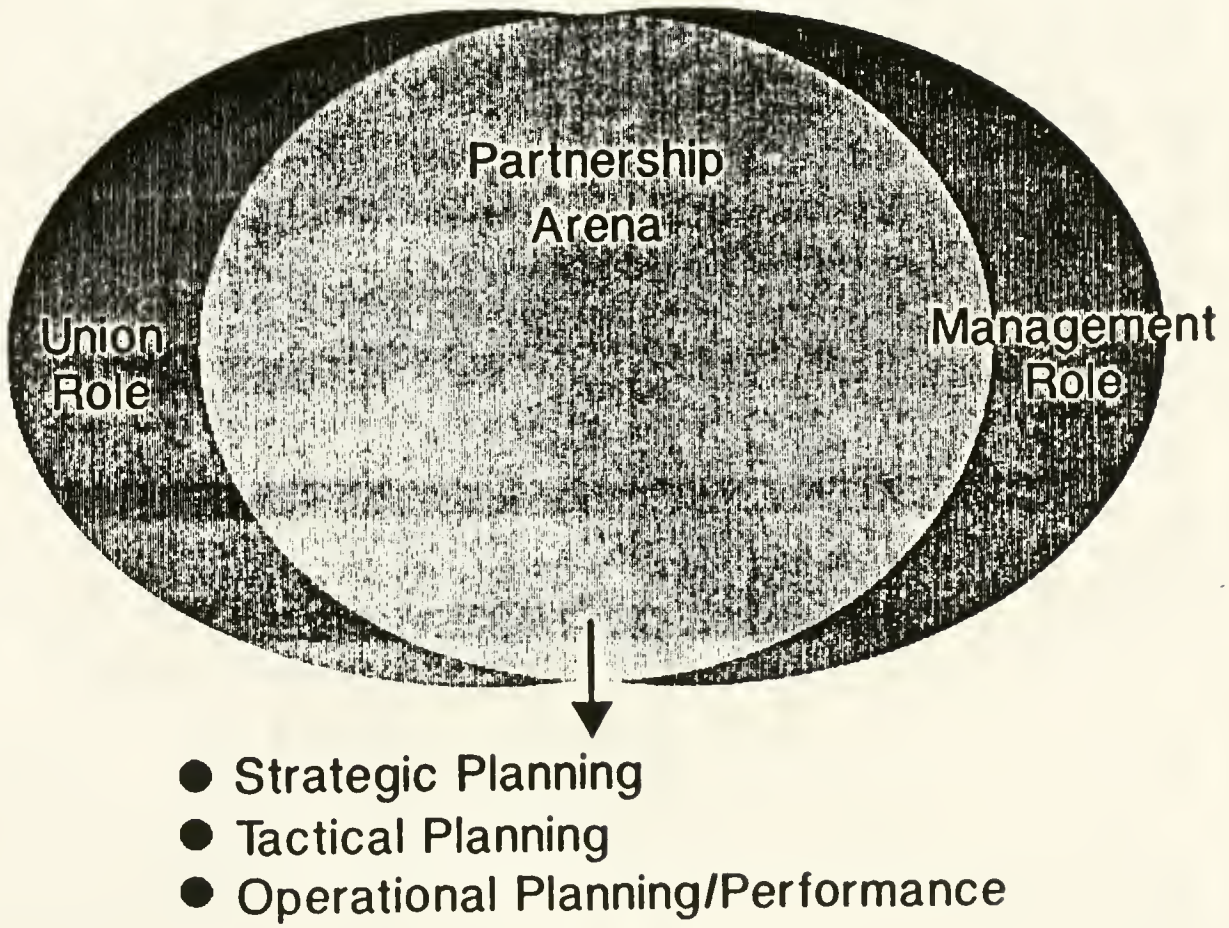
If there is one word that can summarize the heart of Saturn culture, it is partnership. The "clean sheet" approach to management was born in the conviction that old formulas were not responding to the new challenges facing the American auto industry. We have to start de novo, defining the new values necessary to compete effectively and attracting the best people - both from GM management and UAW rank-and-file - willing to assume the challenges and the risks associated with them. Central to creating this new environment for constructive work was the creation of a

close partnership between UAW and GM, which includes union leadership in all managerial decisions of a strategic, tactical and operational nature. This was a unique undertaking: sharing decisions and building mutual trust among parties that had been traditionally confrontational, and suspicious of one another.

The way that Saturn has chosen to illustrate the GM-UAW partnership approach is presented in Figure 1. The two overlapping areas of the ellipses indicate the area of congruency for the two parties. What is evident from the figure is that most decisions fall in the so-called partnership arena, leaving small decision areas where union and management roles have non-overlapping interests. Furthermore, this gap between management and union roles is getting narrower as the two groups become more comfortable with one another, and the area of partnership includes all the most important issues facing Saturn such as the quality of the product, the quality of the worklife of the people in the plant, and concern about the long-term strategic success of the business.

Paramount to the success of this partnership is the establishment of an educational process that will help the union leaders to become more business-oriented, and the managers to understand how employees at all levels feel about the business and its direction. Saturn has used the strategic planning process as a base for this learning vehicle, bringing union and management people together and reeducating them. The strategic planning process becomes a powerful communication and coordination mechanism where people can address such business questions as defining the mission of our business, recognizing the industry trends,

Figure 1: The GM-UAW Partnership Approach



understanding competitors' moves, recognizing what actions the firm has to undertake to establish a strong competitive position, and what roles are required to be played by all the members of the organization. Finally, the process ends up with a much better strategic business plan and a stronger commitment to implementation since we have taken both the employee and the management perspectives into account in every decision we make.

The partnership process is not limited in Saturn just to UAW and GM managers. It extends to integrate dealers and suppliers as true and legitimate partners in the business venture, and includes teamwork - with its associated individual involvement and consensus management - as equally strong elements of the partnership approach.

Self-Directed Teams at Saturn

The cell of the organizational structure of Saturn is referred to as a work unit, a group of about fifteen people integrated as a team, using consensus decision making. The ultimate objective is for the work unit to become a truly self-directed team. Its normal evolution follows a four-phase sequence, whose behavior is illustrated in Figure 2.

The team begins structuring itself in the forming phase, which resembles a conventional type of team activity with two significant exceptions. First, every team counts on the support of two external advisors: a UAW and a management advisor representing the two critical perspectives of Saturn's work. These advisors are shown

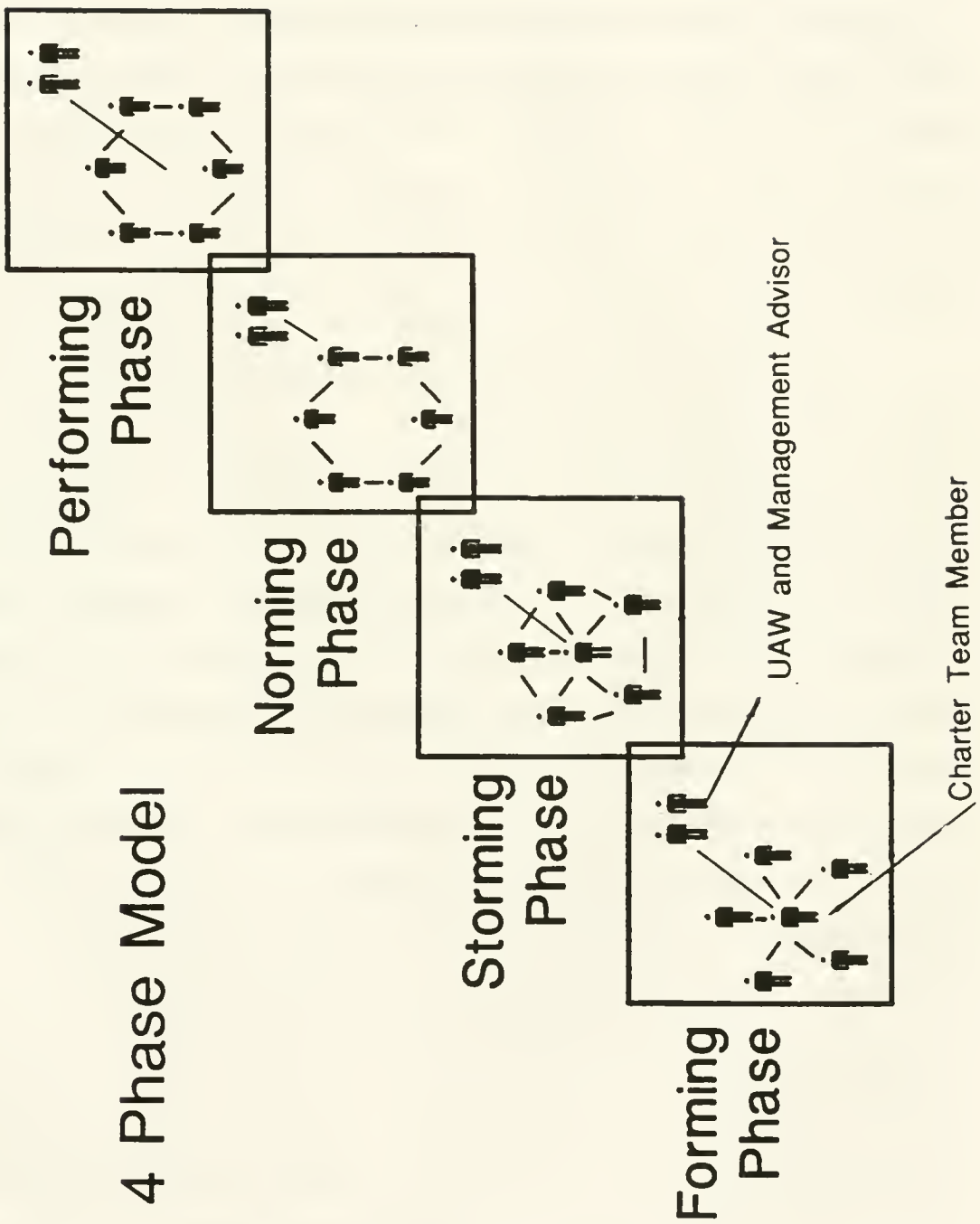


Figure 2: Team Development at Saturn

outside the circles representing the team in Figure 2. Second, a "charter team member" assumes the responsibilities traditionally assigned to a superior or foreman, depicted at the center of the team in Figure 2. He or she hires the other members of the team, teaches them Saturn's mission, philosophy and core values, and provides the team with the proper training for each member to develop the necessary skills, abilities and knowledge to perform the team tasks. In the initial phases of team development, the UAW and management advisors interact directly with the charter team member.

As can be seen in Figure 2, the second phase of team development - the storming phase - is characterized by an increasing amount and degree of group interaction. This is represented in the figure by the lines that surround the team's members, implying an increasing degree of direct communication among them. In the third phase - the norming phase - the charter team member moves outside the center but the advisor continues to interact with the team through him or her. It is only in the last phase - the performing phase - when the advisor acts with the group as a whole, which has become completely self-directed. The charter team member has become an equal team participant.

This full transition is a lengthy process, typically taking two to three years to be fully completed. Also when the team faces some serious changes, such as when two or three new members are added, it is common for a team to step back to the third phase again until it can reaffirm itself as a self-directed team.

Each team member spends from 250 to 750 hours in an intensive educational and training program, just to get ready for the

job. These figures are even more impressive when one realizes that these are not newcomers to the auto industry. Most are people who have worked at GM or other auto manufacturing plants anywhere from five to twenty five years. Moreover, a large proportion of this educational effort is spent on behavioral subjects, emphasizing leadership and team development.

The Organizational Structure of Saturn

The organizational structure of Saturn is so dramatically different from the conventional, hierarchical organizational form that it cannot be explained or represented through the traditional organigrams and organizational charts. Instead, Saturn uses circles as a way to explain the interactions among working units and their participation in the businesses of Saturn. We will now explain how these circles are nested into the overall structure of the Saturn organization.

First, we start at the work unit level. Several work units, whose tasks need to be appropriately coordinated, are included into a work unit module, such as the one shown in Figure 3. The outside circle in the module - referred to as the decision circle - involves all the charter team members of the work units which are part of the module, as well as the UAW and manager advisors. Those advisors normally oversee four to six different teams, all of them represented in the module. In addition, the decision circle of the module could contain temporary or permanent resource people necessary to advise the work unit module in its decisions. For

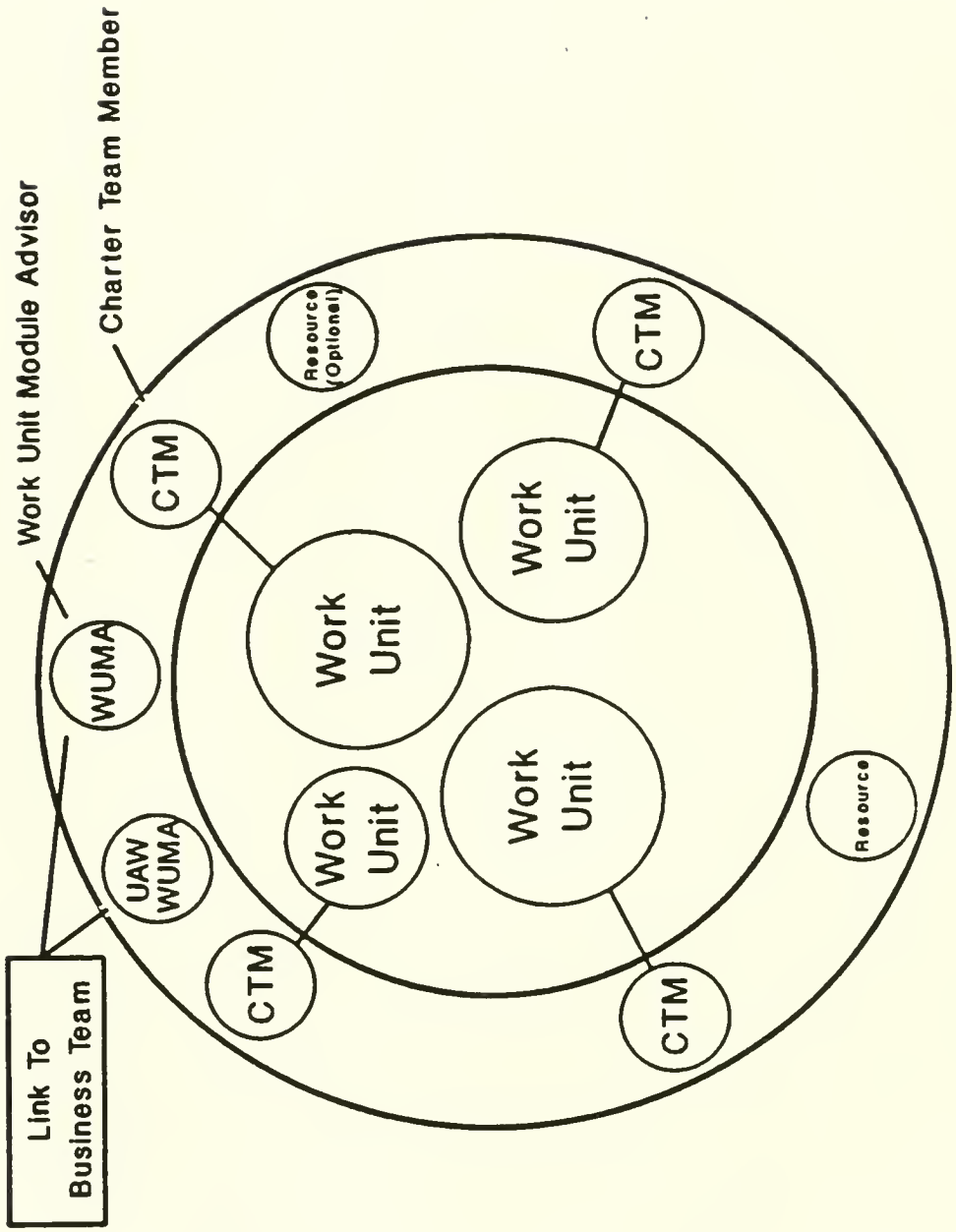


Figure 3: Typical Work Unit Module

example, one such module could be the cooling system of the car. The decision circle can work on ideas for cost reduction and quality improvements, for job content and rotation, etc.

Taking the structure one level higher, the work unit modules become part of a business unit within the Saturn structure, such as the one portrayed in Figure 4. Take, for example, the manufacturing and assembly activities executed in the four million square foot manufacturing complex in Spring Hill, Tennessee. There are three distinct business units in this manufacturing complex: powertrain - making casting from central foundry and building fully-dressed engines and transmissions; body systems - stamping, fabricating and painting complete sets of panels; and vehicle systems - assembly operations and building the final car. These three business units are overseen by the Manufacturing Action Council (MAC), whose decision circle makes decisions affecting the entire manufacturing operation. The MAC organizational circle is presented in Figure 5.

In addition to MAC, there are two other functionally oriented high level councils at Saturn: the Technical Development Action Council (TDAC), which coordinates advanced engineering and design, and the Customer Action Council (CAC), which includes two Saturn dealers and focuses on sales, service, and marketing. At all levels of decision making there is a Saturn manager and a UAW manager advising the teams. In the case of MAC, the Vice President of Manufacturing and the President of Saturn's UAW are the corresponding members of the manufacturing advisor circle.

Finally, the MAC, TDAC, and CAC come together at the Strategic Action Council (SAC) which oversees the organization and

Figure 4: Typical Business Team

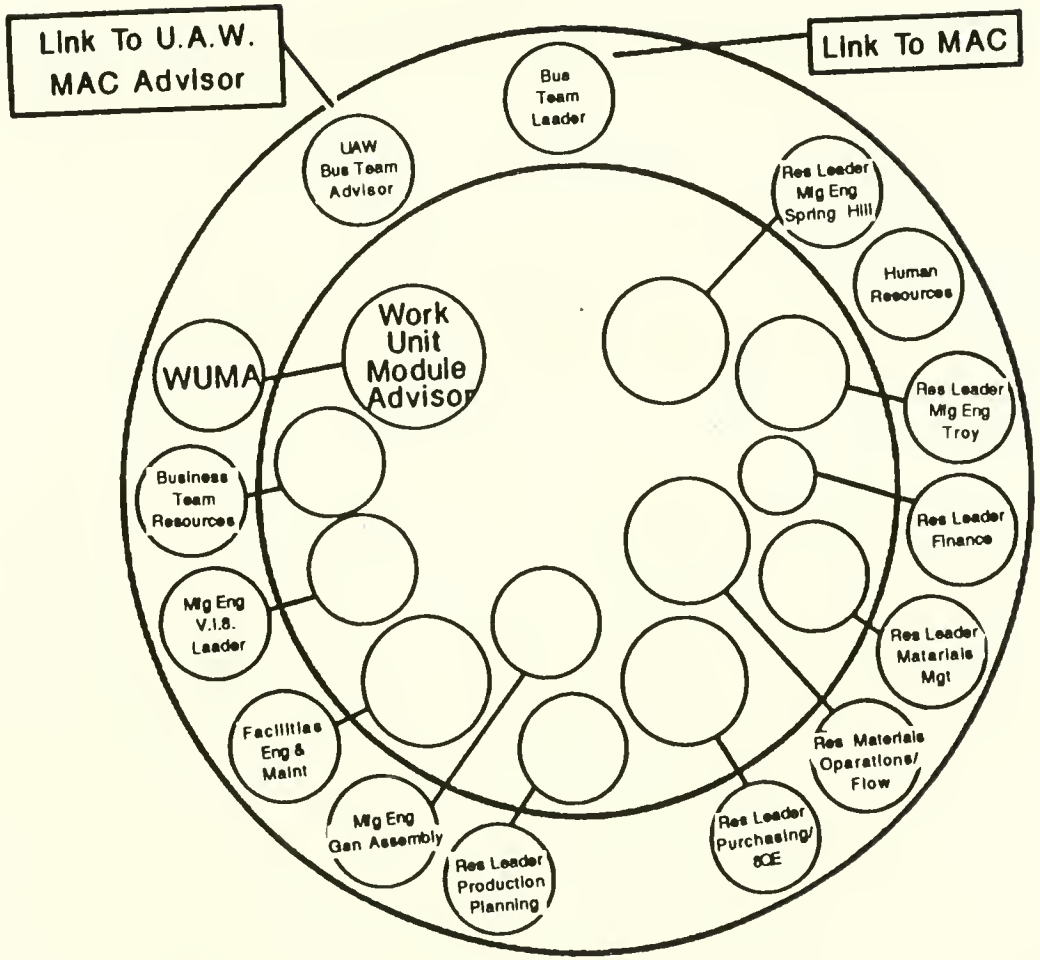
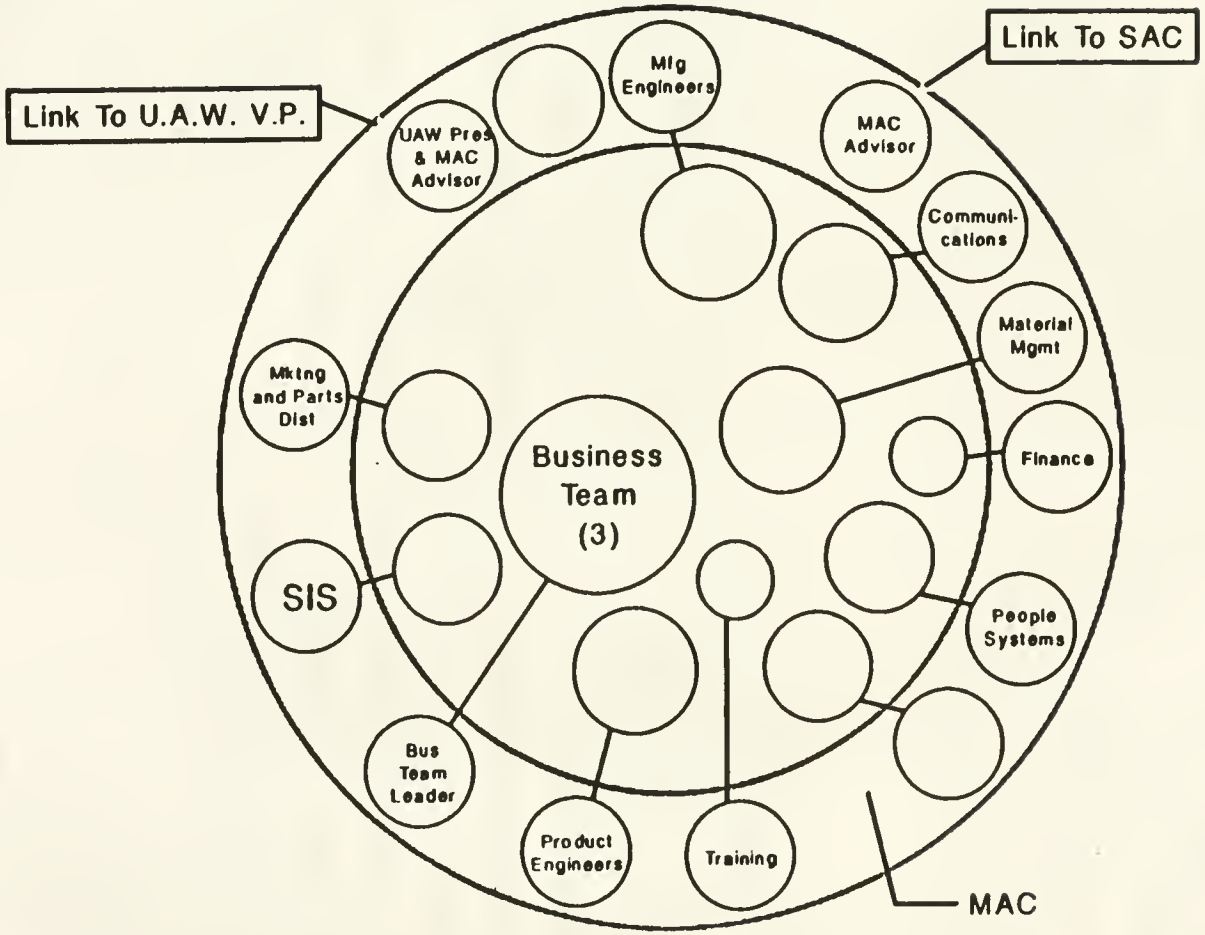


Figure 5: The Manufacturing Action Council (MAC)



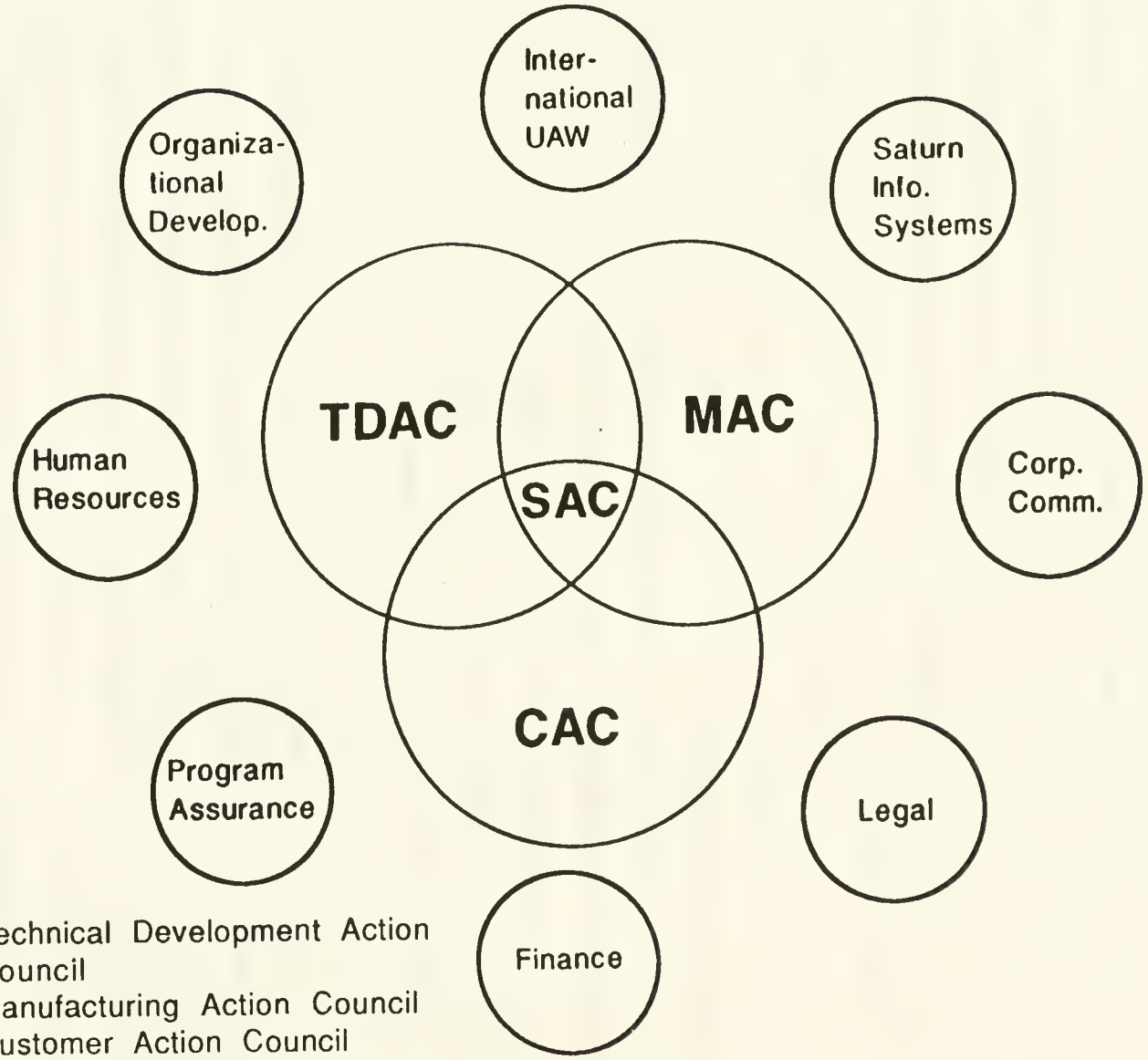
sets strategic directions. As Figure 6 shows, all the councils have a number of critical resource teams assisting them. They operate in a way which is different from the traditional staff functions. Rather than becoming centralized entities at the corporate level, they are more flexible, fluid and involved than the conventional functional structure. As their name implies, the Resource Teams are a highly qualified set of professionals, moving from business teams to business teams, adding capabilities and participating actively in the decision making process, as the businss teams require their support.

The Rewards System of Saturn

Another remarkable departure from the conventional U.S. auto industry practiceis the agreement established by Saturn and UAW to share in the rewards of the overall company performance. However, in order to get the rewards, UAW agreed to put something at risk. The agreement calls for 20 percent of workers' wages to go back into General Motors if certain pre-determined performance goals were not met. The goals are to be negotiated each year and involve targets such as quality, number of cars produced, and productivity. Obviously, if those goals are exceeded, workers can gain above the 100 percent base salary. The base pay is the domestic auto industry's average base, not just General Motors'.

The 20 percent pay-at-risk concept contributes to creating a climate of teamwork and continuous improvement. Through focusing everyone involved on common goals, risk and rewards compensation creates a "win-together" environment. It pulls an already close

Figure 6: The Top Organizational Councils and Resource Teams at Saturn



TDAC = Technical Development Action Council
MAC = Manufacturing Action Council
CAC = Customer Action Council

group even closer together, every team member is propelled to be supportive of each other.

It is also important to emphasize that the targets that determine superior performance achievement are set at the broadest scope - these are Saturn's goals, not individual or group performance objectives. It constitutes a total Saturn reward system, preventing parochialism that often puts groups in an organization in conflict with one another.

Suppliers at Saturn

The same spirit of partnership that characterizes all Saturn's activities is reflected in its relationships with suppliers. The goal is to establish a long-term partnership with only one supplier per input to be acquired. The relationship is based on mutual trust, high quality standards, just-in-time deliveries, and continuous improvement.

In determining what materials are sourced, Saturn engages members of the organization with different expertise - manufacturing, engineering, finance, materials management, quality management, and UAW technicians - to form a Product Development Team (PDT).

The team first visits different facilities of prospective suppliers. They determine how well these candidates will be able to meet the company's needs on a timely basis and how well they run their own organizations.

Then, after establishing the necessary lead-time requirements and narrowing the list of candidates, the group members determine by consensus which supplier can best serve the organization. Upon agreement with leadership, the supplier candidate recommended by the PDT becomes a Saturn partner.

But the process does not stop there. What may be even more important is that the PDT continues to work with the supplier - after the partnership is formed - to ensure continuous improvement.

Saturn was the industry leader in the development of an Electronic Data Interchange (EDI) system to communicate with its suppliers, using the Automotive Industry Group standards approved by the National Bureau of Standards.

Saturn currently uses EDI for materials flow and just-in-time inventory control, as well as for payment process. EDI allows Saturn to regularly communicate with suppliers on planning schedules, shipping schedules, inventory advice, and payment advice. Overall, the use of EDI in Saturn has reduced order cycle time, clerical processing time, postal service expenses, and costs. It has increased accuracy within the organization because most transactions are electronic.

Saturn currently has over 300 direct suppliers who communicate with the auto company through EDI for material planning and shipping schedules. In addition, it uses Electronic Funds Transfer, a "money" form of EDI, to pay over half of its suppliers. Saturn is using standardized forms of EDI more and more because it wants to communicate electronically with as many

organizations as possible. Saturn's interest in and use of this standard is being shared with other GM organizations.

Dealers at Saturn

Dealers at Saturn are referred to as retailers. The people-partnership embraces all members of the Saturn network - including the retailer, who is Saturn's direct contact with the end-user. A vital participant in the Saturn organization, the retailer must not be threatened by a spirit of competitiveness from other Saturn retailers; that has proven counterproductive in the automobile industry. Instead, Saturn retailers have their designated market areas, lending helping hands to other regions as needed. Sound like an ideal? If not for the Saturn philosophy and mission statement, it would be. Framed and hanging on the retailers' walls, they are daily reminders of how to make decisions, just as they are at Spring Hill.

Saturn has developed a state-of-the-art business system to integrate its retail network. Each Saturn retailer is equipped with IBM AS/400 system coupled with ongoing satellite communication for 2-way data and 1-way video information exchanges. The integration between Saturn and its dealers allows each retailer instant access to vehicles in the production pipeline for purposes of order change and status. It also allows for the rapid location of service parts since Saturn has its finger on each dealer's inventory 24 hours a day. The integration also facilitates early detection of product problems, as all vehicle repair information is transmitted nightly to Saturn for analysis.

A significant event to demonstrate this early detection process was the recall of 1800 Saturn cars that had been shipped with a defective Texaco cooling liquid. A sudden increase in water pump changes was observed within three days of its initial occurrence through information transmitted by the dealer network. In two weeks all the cars had been recalled, averting a major calamity in the field. Normally this defect would have been detected when the warranty claim had begun to materialize.

Information technology has also benefitted operations within the retail outlet. The sophistication of the systems has allowed the retailer to reduce their personnel costs through the elimination of the need to order vehicles and service parts. The integration of the system within the dealership also reduces the handling of the same data by multiple people.

Technological Initiatives at Saturn

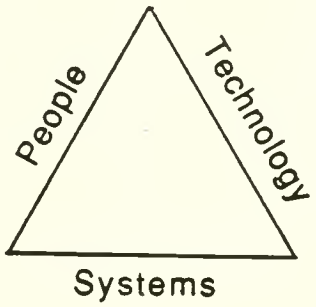
The central challenge facing industry today is the ability to integrate people and technology in a fast-to-market environment. With increasing consumer demands and a greater number of competitors in the field, companies have to react more quickly than ever if they are to survive.

Very often the missing ingredient in a company's equation for success is people. Many corporations fail on this level because they implement high technology without a structure to help the workforce keep pace. The investment in the most technologically advanced piece of equipment in the world is wasted if it is not easy

to use and employees struggle with the machinery rather than concentrate on doing quality work.

At the same time, technology is no enemy. It is vital to getting to the marketplace fast. But while some traditional companies lack the systems to integrate people and technology, Saturn is built around them.

An equilateral People-Technology-Systems triangle is used by Saturn to describe its mindset toward technology. The Systems form the base of the triangle, supporting People and Technology equally. Within this structure people and technology can grow at the same rate.



This mutual growth is the foundation of the continuous improvement process and the cornerstone of the company's people and technology philosophy. If people and technology needs can be interrelated and kept growing simultaneously, Saturn can be successful in a fast-to-market world.

Saturn has made a number of important technological innovations in American car building such as the plastic external panel, and the use of the skillet system method of assembly. Saturn was also the first U.S. automobile manufacturer to build both

automatic and manual transmissions on the same line, an unusually flexible operation in the manufacturing industry. All of these accomplishments have been obtained by securing the total involvement of the team members related to these tasks in the design stage of new technologies, and making sure they have a strong voice in the design of their work environment. Saturn puts people first, and lets people drive technology. The balance is accomplished through business systems.

Business Systems Development at Saturn

As it happened with any other important activity at Saturn, business systems were also developed from a clean-sheet approach based upon the following guiding principles:

- functional applications would process on a single corporate platform
- database structure would be relational
- data entities would be defined in a central repository, and
- rigorous standards would be established regarding data presentation and data modelling.

These principles enabled Saturn to achieve a level of integration unheard of in most industries, eliminating the inefficiency of interfaces between systems and resulting in accurate real-time data for all critical business needs.

Electronic Data Systems (EDS), the data processing company that GM acquired from Ross Perot, provides most of the expertise and equipment that allows Saturn to integrate its business systems.

Due to the many differences in Saturn - including new staff, new business processes, new technology, new car, and new culture - EDS had a unique opportunity to provide a complete new systems approach. To ensure that every new system was ideal for Saturn - in terms of cost, integration, and operations - the Business System Action Council (BSAC) was created, reporting to the EDS member of the Strategic Action Council. BSAC ensures consistency in Saturn systems, since every decision is agreed to by the members of the group, which include all the functional areas of Saturn. The partnership between Saturn and EDS guarantees EDS involvement in all key decisions. Thus EDS is not just a provider of information technology but a critical resource team.

Saturn's EDS manager has used the slogan "from art to part" to describe the integrated nature of Saturn's systems, meaning that every element of the car is first designed on computers which inform purchasing, manufacturing and all other departments what to be done to proceed with an orderly production schedule. Also suppliers and dealers are integrated electronically to process their financial and physical transactions previously described.

The following list of applications provide a more detailed account of the business systems Saturn has implemented to support each of its managerial functions:

Human Resources -

- Member Roster - identifies and maintains all demographic people related data and is the sole source of people information for all Saturn systems.

- Education Tracking - tracks and maintains training plans and history for all employees at Saturn (including those not yet hired but identified as a need).
- Represented Applicant Tracking - a tracking system set up to track the applications received to fill the plant floor and other openings. This system supports searches to match for open positions.

Product Engineering -

- Business systems have achieved a level of integration unmatched in GM resulting in a significant cost savings, and elimination of redundant data.
- 100 percent of Saturn's in-house product design is done electronically using CAD/CAM/CAE.
- In line with Saturn's initial vision to be paperless where appropriate, the Saturn office environment is tailored to support a computer literate workforce - electronic mail and EDI are the foundation for inter- and intra-corporate communications.

Manufacturing -

- The total manufacturing planning process is an integrated solution with Product Engineering, Material Systems and Dealer Order Processing.
- The systems maintain document information on current and future processes and integrate with the CAD system.
- The systems identify tool gauges and machinery and relate them to the process in which they are used.

Materials Management -

- Every part is ordered every day and delivered using pre-planned routes and scheduled dock times.
- Electronic Data Interchange (EDI) is used to communicate weekly planning quantities and daily shipping schedules.
- Material is paid for based on units produced and these produced counts serve as a basis for replenishment scheduling.

Sales, Service & Marketing -

Vehicle Distribution -

- An allocation system where monthly allotments are agreed upon by both the Dealer and Manufacturing.
- An order management system where Dealer orders are computer-generated based upon individual retailer sales and seasonality.

Service Parts -

- The system is integrated with Product Engineering for service parts releasing and integrated with Materials Management for part scheduling.

Service -

- Service applications designed around a National Vehicle History to support the following activities:

  Dealer Service Operations

  Product Engineering/Manufacturing

  Warranty Administration

  Saturn Assistance Centers.

Retailer (Dealer) -

- The Saturn Retailer System was developed in partnership with Saturn and its retailers to provide the following applications:

  Sales - Integrated Finance & Insurance, Vehicle Inventory and Prospecting

  Parts - Locator, Inventory, Invoicing and Replenishment

  Service - National Vehicle History, Diagnostics Integration, Service Merchandising & Invoicing

  Business - Automated Delivery Reporting, Financial Reporting, AR/AP, Payroll & Purchase Order

  Communications - Satellite Technology for data and video, integrated with Saturn Corporate Systems.

Financial -

- Use of Electronic Funds Transfer (EFT) is the standard.
- On-line time reporting system supports the entire workforce.
- Only one disbursement activity handles all purchasing activities: direct, indirect, freight, services, etc.
- The financial database is integrated to communicate with dealers and suppliers.

Corporate Communications -

- EDS installed full motion teleconferencing equipment between its Michigan and Tennessee facilities in order to expedite communications and eliminate travel time and dollars.

- EDS installed a media center for the Tennessee site that will provide site-wide video distribution, video production and edit capabilities, conference audio/visual needs and satellite receive capability.

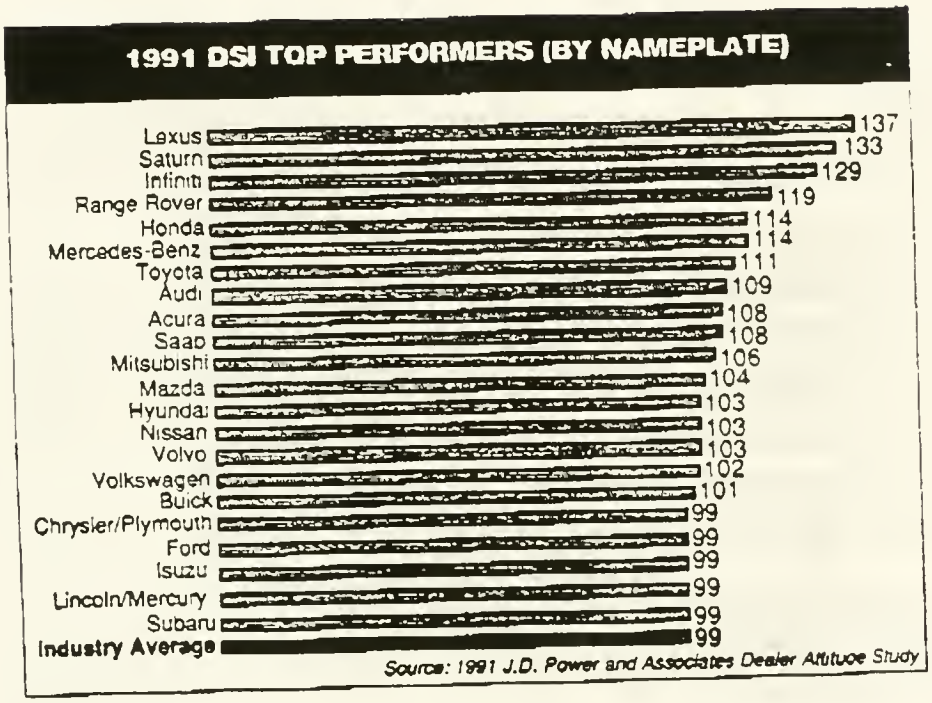
Early Results

We recognize it is premature to talk about success in the Saturn initiative. By end of 1991 the plant in Tennessee had not yet reached its full capacity and although Saturn has currently openend 144 retailers, the plan is to have approximately 250 by the end of 1992. However it is not too early to examine the accomplishments of Saturn in terms of customer satisfaction and dealers' performance.

Figure 7 shows the Dealer Satisfaction Index (DSI) in 1991 as reported by J.D. Power and Associates based on their Dealer Attitude Study. As can be seen in the figure, Saturn is only surpassed by Lexus and is ahead of Infiniti, two of the most successful recent entrants in the luxury car market.

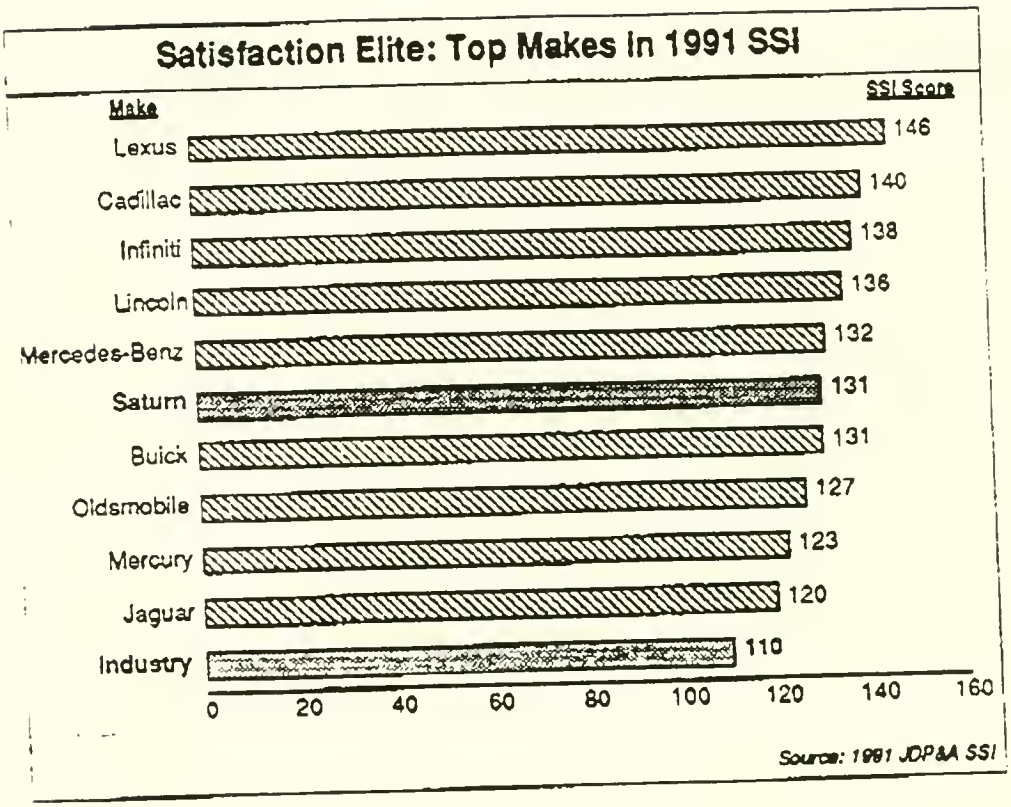
The result of J.D. Power and Associates Sales Satisfaction Index (SSI) positions Saturn well ahead of the industry in sixth place behind Lexus, Cadillac, Infiniti, Lincoln, and Mercedes-Benz - the top nameplates in the luxury car segment that cost tens of thousands of dollars more than a Saturn (see Figure 8). When Saturn is ranked against the top five basic small performers, which are its direct competitors, Saturn's SSI score is by far superior to all of them, as illustrated in Figure 9. The SSI measures owners' overall satisfaction with the sales and delivery experience.

Figure 7: 1991 DSI Top Performers (By Nameplate)



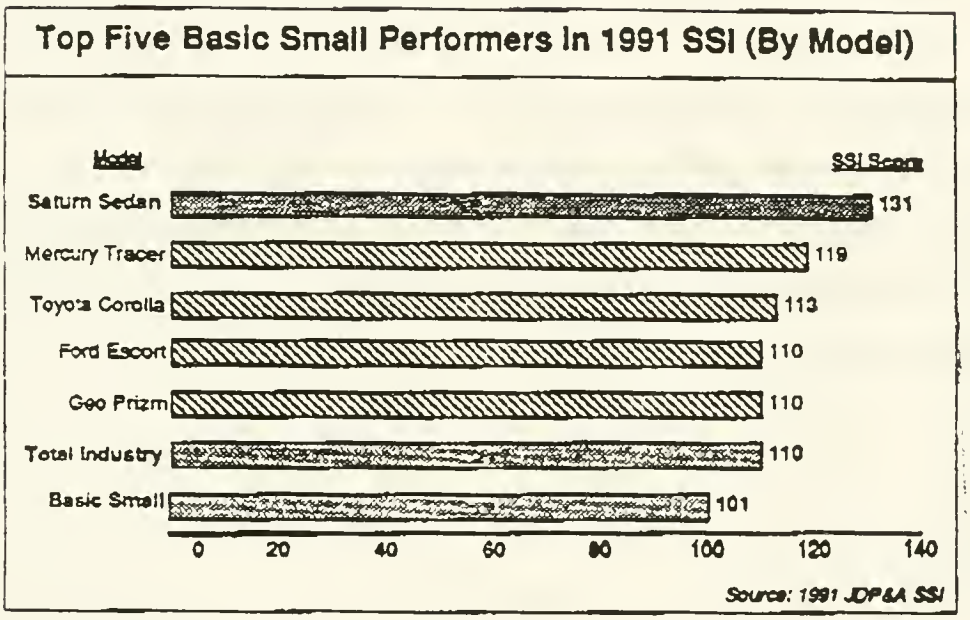
Source: "The Power Report", February 1992.

Figure 8: Satisfaction Elite: Top Makes in 1991 SSI



Source: "The Power Report Special Saturn Issue"

Figure 9: Top Five Basic Small Performers in 1991 SSI (By Model)



Source: "The Power Report Special Saturn Issue"

These results have led J.D. Powers and Associates to state that "Saturn, Lexus and Infiniti are raising traditional standards of customer satisfaction in the automative marketplace. The degree to which new-car buyers respond to these efforts could determine whether or not every other manufacturer will be forced to change as well," as stated in "The Power Report Special Saturn Issue".

Finally the 1991 Estimated New Vehicle Profit Performance by Franchise, also reported by J.D. Powers and Associates, has Saturn third in total new vehicle gross profit per dealership after Lexus and Infiniti. The top ten performers are listed in Figure 10.

All of these indicators seem to show an impressive debut for Saturn in the area of customer satisfaction, the central criteria for its strategic positioning.

Lessons Learned

We have tried to communicate the basic principles that guide the Saturn organization in an attempt to regain competitiveness in one of the most critical and contested segments of the automobile industry. What have we learned from this effort? It can be summarized in these fundamental lessons:

1. Involvement. The cornerstone of Saturn's leadership philosophy is that people want to be involved in the decisions affecting them. Involvement translates into a better understanding of the businesses and generates a powerful learning process throughout the organization.

Figure 10: 1991 Estimated New Vehicle Profit Performance by Franchise

Franchise:	Average Sales Per Outlet 1	Average Gross Profit Per Unit 2	Total New Vehicle Gross Profit Per Dealership
Lexus	565	$4,390	$2,480,350
Infiniti	391	$3,429	$1,340,739
Saturn	694	$1,292	$896,648
Acura	482	$1,831	$882,542
Toyota	784	$1,006	$788,704
Honda	676	$1,138	$769,288
Mercedes-Benz	145	$4,539	$658,155
Nissan	493	$1,041	$513,213
Ford	519	$963	$499,797
Mitsubishi	387	$1,145	$443,115

Source: "The Power Report", February 1992

2. Commitment. Involvement also leads to a sense of ownership and a personal sense of duty and responsibility to make the decisions work. Implementation occurs much faster, in a more logical way.

3. Quality over quantity. The strongest and unbending change is the pursuit of the highest quality standards in the auto industry. Saturn is creating a culture where everything that is done has a quality stamp on it.

These appear to be simple lessons. Their impact, however, is expected to be of tremendous proportions.

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